REMARKS

This Amendment is filed in response to the Office Action mailed Oct. 26, 2007. All objections and rejections are respectfully traversed.

Claims 20-51 are now pending in the case.

Claims 30, 34, 28, 34, 38, 40, 43, 46, and 50 have been amended.

No new claims have been added

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Response to Examiner's Response to Arguments

At paragraph 3 of the Office Action, the Examiner responds to the Applicant's recent arguments. The Applicant previously argued that, while the Applicant claims transitioning an "access port" with "rapid forwarding" directly to the forwarding spanning tree port state, Gai discusses transitioning different types of ports (i.e., back-up trunk ports) into the forwarding state in various different circumstances. In response, the Examiner pointed to Gia's trunk ports 119 and stated "ports 119 of access switches 112-116 could be connected via a shared media LAN 109." It appears the Examiner believes at least some trunk ports 119 could be considered access ports under the Applicant's definition.

The Applicant has clarified the definition of "access ports" to make clear that an access port is a different type of port than Gia's trunk ports. The Applicant now recites *"wherein an access port is a port that <u>does not provide connectivity to switches or bridges</u> coupled to other portions of a computer network, but instead connects to a Local Area Network (LAN), a server or an end station."* The port of Gia's Switch 116 coupled to LAN 109 cannot be considered an access port because it clearly provides connectivity to switch 125 which is coupled to other portions of the larger computer network.

Gia makes clear his techniques are for use with back-up trunk ports, and not access ports or other types of local ports. Gia first draws distinction between trunk ports and other types of ports stating "[p]orts used to couple switches to each other are generally referred to as a trunk ports, whereas ports used to couple a switch to LANs or end stations

are generally referred to as local ports." *See* Gia col. 1, lines 42-46. Gia then discusses an "Uplinkfast" technique **for back-up trunk ports** stating:

> [t]he remaining **trunk ports** which normally connect the access switch to the corresponding backbone switches are blocked. The Enable Uplinkfast command also designates **blocked trunk ports...as possible back-up root ports**. Upon failure of the current root port, this command additionally configures the access switch to immediately transition one of its **blocked trunk ports** to the forwarding state... *See* col. 6, lines 36-44.

Gia is silent concerning fast forwarding techniques for access or other local ports.

Claim Rejections - 35 U.S.C. §102

At paragraphs 2-3 of the Office Action, claims 20-51 were rejected under 35 U.S.C. §102 as anticipated by Gai et al., U.S. Patent No. 6,031,194 (hereinafter Gai).

The Applicant's claim 20, representative in part of claims 20-23, 25-29, 31-35, 37, and 39-41 sets forth:

> 20. A computer readable medium containing executable program instructions for use by an intermediate network device having a plurality of ports for receiving and forwarding network messages, the executable program instructions comprising program instructions for:
> > *configuring one or more ports as access ports, wherein an access port is a port that does not provide connectivity to switches or bridges coupled to other portions of a computer network, but instead connects to a Local Area Network (LAN), a server or an end station;*
> > *configuring one or more access ports as rapid forwarding ports;*
> > identifying all ports that have been configured as access ports with rapid forwarding; and
> > *upon initialization of the device, placing each identified access port with rapid forwarding directly to a forwarding spanning tree port state, without transitioning such identified ports between any intermediary spanning tree port states,* so that network messages may be received and forwarded by such identified ports immediately.

Gai discloses a method and apparatus for rapidly reconfiguring a computer network. *See* abstract. "Upon start-up, the ports of each switch 230, such as switch 214, are initially placed in the listening state and spanning tree engine 235 begins formulating and transmitting bridge protocol data units (BPDU) frames." *See* col. 10, lines 1-4 (emphasis added to quotation). Eventually, "the spanning tree algorithm will converge." *See* col. 10, lines 22-25. At that point, "only one port (local or trunk) that represents a path from the access switch to the root... will be forwarding. All other ports (local or trunk) that represent paths from the access switch to the root will be blocked." *see* col. 11, lines 8-15. "Upon failure of the current root port...the access switch [is caused] to immediately transition one of its blocked trunk ports to the forwarding state" (emphasis added). See col. 5, lines 43-44. "That is, the spanning tree engine 236 does not transition the selected back-up port between listening or learning states" (emphasis added). *See* col. 12 lines 15-37.

The Applicant respectfully urges that Gai does not teach or suggest the Applicant's claimed "*configuring one or more ports as access ports, wherein an access port is a port that does not provide connectivity to switches or bridges coupled to other portions of a computer network, but instead connects to a Local Area Network (LAN), a server or an end station*" and "*upon initialization of the device, placing each identified access port with rapid forwarding directly to a forwarding spanning tree port state, without transitioning such identified ports between any intermediary spanning tree port states.*"

While the Applicant places an "access port" with "rapid forwarding" directly to the forwarding spanning tree port state, without transitioning between any intermediary spanning tree port states, Gai discusses transitioning different types of ports (i.e., back-up trunk ports) into the forwarding state in various different circumstances. These other types of ports (i.e., back-up trunk ports) may not fairly be interpreted as access ports. The Applicant makes clear that an access port is *a port that does not provide connectivity to switches or bridges coupled to other portions of a computer network, but instead connects to a Local Area Network (LAN), a server or an end station*. The back-up trunk

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ports that Gia discusses that may be enabled to "Uplinkfast" are ports that may transition to become the root port, and thus, by definition, offer connectivity to a root bridge. *See* Gai col. 6, lines 39-35 and col. 12, lines 18-19. As such, they clearly provide connectivity *to switches or bridges coupled to other portions of a computer network* and are different from the access ports the Applicant is concerned with. Accordingly, Gai does not teach or suggest *placing each identified access port with rapid forwarding directly to a forwarding spanning tree port state, without transitioning such identified ports between any intermediary spanning tree port states.*

Further, the Applicant's claim 30, representative in part of claims 24, 38, 43, 46, and 50, sets forth:

> 24. A computer readable medium containing executable program instructions for use by an intermediate network device having a plurality of ports for receiving and forwarding network messages, the executable program instructions comprising program instructions for:
>
>> configuring one or more ports as access ports;
>>
>> configuring one or more access ports as rapid forwarding ports;
>>
>> identifying all ports that have been configured as access ports with rapid forwarding; and
>>
>> upon initialization of the device, placing each identified access port with rapid forwarding directly to a forwarding spanning tree port state, without transitioning such identified ports between any intermediary spanning tree port states, so that network messages may be received and forwarded by such identified ports immediately;
>>
>> wherein *each access port configured with rapid forwarding is placed in the forwarding state prior to a physical layer link-up signal being received at the respective port.*

The Applicant respectfully urges that Gai does not teach or suggest the Applicant's claimed *"each access port configured with rapid forwarding is placed in the forwarding state prior to a physical layer link-up signal being received at the respective port."*

In contrast to conventional techniques in which link a port is not even placed in the listening spanning tree state until such a **physical layer link up** signal is received, the Applicant novelly transitions a port into the forwarding state *prior to a physical layer link-up signal being received at the respective port.* Gia is silent concerning such novel feature. The Office Action cites to col. 14, lines 50-57 of Gia. However such lines do not even mention a *physical layer link-up.* Accordingly, they cannot possibly teach transitioning to a forwarding state prior to receipt thereof.

Further, the Applicant's claim 24, representative in part of claims 30, 36, 42, 44-45, 47-49 and 51, sets forth:

> 30. A method comprising:
>   configuring one or more ports of a network device as access ports;
>
>   *configure one or more access ports to have a rapid forwarding designation by selecting with a management protocol, by a network administrator, the one or more access ports to have rapid forwarding designation;*
>
>   identifying the ports that have been configured as access ports with rapid forwarding designation; and
>
>   upon initialization of the network device, placing each identified access port with rapid forwarding designation directly into a forwarding spanning tree port state, without transitioning such identified ports between any intermediary spanning tree port states, to enable network messages to be received and forwarded by such identified ports immediately.

The Applicant respectfully urges that Gai does not teach or suggest the Applicant's claimed "*configure one or more access ports to have a rapid forwarding designation by selecting with a management protocol, by a network administrator, the one or more access ports to have rapid forwarding designation.*"

While the Applicant enables a network administrator to select with a management protocol one or more access ports to have a rapid forwarding designation, Gia is silent regarding so designating ports. Gia's "Enable_Uplinkfast" command changes the proper-

ties of a switch as a whole and thus is not a designation that may be selected for one or more selected ports. *See* Gia col. 6, lines 27-38.
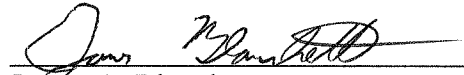
Accordingly, at least the above reasons, the Applicant respectfully urges that Gai is legally insufficient to anticipate the present claims under 35 U.S.C. §102.

Should the Examiner believe telephonic contact would be desirable in the disposition of this case, the Applicant encourages the Examiner to contact the Applicant's attorney at 617-951-2500 at any time.

All the independent claims are believed to be in condition for allowance and therefore all the dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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